

## ENVIRONMENTAL ASSESSMENT

EA Number: 056-01-058  
Project: West Butte Fence  
Project Number: 73-7225  
Prineville District  
Bureau of Land Management

### **I. Purpose and Need**

#### A. Purpose

The primary purpose of this project is to promote more uniform livestock use within the Williamson Creek ("North Pasture") area of the West Butte Allotment, located near Millican, Oregon. About one quarter of this pasture is public lands, with the remainder being in private ownership - all under common grazing management techniques.

Currently, livestock tend to concentrate on (show preference for) key forage areas (such as near Williamson Creek and near springs) on public and private lands in the area. Such preference causes some grass plants to be re-grazed, while other grass plants are not grazed at all. This can affect the vigor and reproduction of these plants, and can negatively affect livestock nutrition (livestock not grazing previously ungrazed plants).

#### B. Direction and Guidance

Direction and guidance for range, vegetation and livestock grazing management of this area are provided in the following documents:

##### 1. Brothers/LaPine Resource Management Plan ("RMP")

Direction in this plan that pertains to public lands in the area includes the following:

- a. Management Goals/Actions for the West Butte Allotment (pps. 78-79): Improve ecological/watershed conditions, sage grouse/mule deer/antelope habitat conditions; and increase livestock forage availability. Allocate 806 AUM's of forage for livestock.
- b. Rangeland Development Implementation (p. 81): Construct 5 miles of fences.
- c. Riparian Area Grazing Management (p. 86): Use grazing management, fencing as warranted to achieve full riparian vegetative potential.

##### 2. Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington" ("S & G's")

These pertain to both upland and riparian areas. Objectives and guidelines applicable to this project include the following:

- a. Objectives (p. 1): Promote healthy, sustainable rangeland ecosystems; accelerate restoration and improvement of public rangelands; provide for the sustainability of the western livestock industry.
- b. Livestock Grazing Management Guidelines (p. 17): Use practices such as fencing where appropriate to promote livestock distribution; to encourage a uniform level of grazing use; and to avoid livestock concentrations in riparian areas.

### 3. Management Guidelines for Greater Sage-Grouse and Sagebrush-Steppe Ecosystems

These pertain to both upland and riparian areas.

- a. Maintain and enhance existing sage-grouse habitats (p. 12).

#### C. Need

There is a need to promote more uniform livestock use that facilitates the accomplishment of the above goals, direction, and guidelines in both upland and riparian areas.

In this regard, the grazing permittee (West Butte LLC) for the West Butte Allotment (#5231) has offered to construct a 0.8 mile-long division fence on an isolated, 160-acre public land parcel located within in the NW 1/4 of Section 27, T 18 S, R 16 E, Willamette Meridian. A map showing the location of this project is located in Appendix A.

If this fence was constructed, then the adjacent private land owner would construct approximately 4 miles of fence (of a design similar to that proposed for public lands) on his adjacent private land, thereby creating a new management pasture.

The objectives of this fence are to increase livestock forage availability and to improve wildlife habitats/ecological/watershed conditions, in both upland and riparian areas. This project would accomplish this by creating two smaller management pastures, which would help promote more uniform, shorter-duration livestock use on both upland and riparian areas.

## **II. Proposed Action and Alternatives**

### A. Alternative A: Proposed Action

This alternative would entail the construction of 0.8 miles of fence within an approximately 15-foot wide corridor, the latter which would be established by manually clearing only that vegetation which would impede the installation of the fence.

This parcel is an ideal location for this fence, since it provides a logical break between the Williamson Creek drainage to the west, and the upland areas to the east. This fence would be financed and constructed by the aforementioned grazing permittee and Crook County. It would be connected to about 4 miles of fence that the permittee plans to construct on his private lands.

This alternative would address the purpose and need by providing more uniform and shorter-duration livestock use.

The proposed fence would be built with four primary criteria in mind:

1. Minimize obstacles/hazards to wildlife movement. This would be accomplished through the following design specifications:

- 3-wire, barbless design, except in high-livestock pressure areas, where barbed wire would be used on top
- Wire spacing: Bottom wire 16-18 inches, top wire 38-40 inches above ground level
- Steel posts would be green, with white tops

2. Avoid visual/scenic impacts. This would be accomplished through the following design specifications:

- Steel posts would be set so that their tops would be no more than 4 feet high
- All line clearing would be done via manual means
- The 15-foot wide fence corridor would not have all vegetation removed.

- A thorough site cleanup would be performed after completion of the fence
  - Juniper trees greater than 15 inches diameter at breast height (dbh) would not be felled
3. Control livestock movement. This would be accomplished through the following design specifications:
- Post spacing would be 16 feet in pressure points; 20 feet in other areas
  - Steel post blades would be set facing the direction of the most livestock pressure
4. Promote structural longevity; minimize future maintenance/reconstruction costs. A properly constructed fence means less short- and long-term maintenance costs and extends the useful life of the structure, which in turn avoids premature fixed reconstruction costs. This would be accomplished by the following:
- Steel posts would be set a minimum of 10 inches into the soil surface
  - Either steel or juniper/cedar/redwood figure 4's would be used in locations where steel posts could not be pounded
  - Figure 4 posts would have one 40d or larger driven at connection points, and double-wrapped with 12-gauge galvanized or annealed wire
  - At least one steel or wood stay would be placed between each post
  - Rock cribs would be used for bracing where juniper trees where unavailable. Rock cribs would be built according to the following specifications:
    - Only 12-2-4, 48-inch annealed wire would be used
    - Crib diameter would be between 34 to 40 inches wide
    - Four evenly-spaced steel crib posts would be set around the circumference of the crib
    - Crib posts would be diagonally cross-wired at three points (bottom, middle, top)
    - Two 3-foot diameter stub anchors would be laid in the bottom, cross-decked but not touching the ground
    - Two married steel anchor posts would be driven within 8 feet of the crib
    - A minimum of 4 anchor wires would be strung from the stub posts to the anchor posts
    - The bottom anchor wire would be double-tied on the anchor post at a point no lower than 2 inches below the bottom run wire
    - The top anchor wire would be double-tied on the anchor post at a point no higher than 2 inches above the top run wire
    - The crib-anchor post barrier wire would not be strung until the entire fence was constructed
    - The barrier wire would have no more than 10 pounds pull pressure
  - Where juniper trees are used for corner or line bracing, scab boards would be set as follows:
    - A minimum of 2 20-d nails would be driven within 6 inches of the board/stem ends
    - The minimum number of scabs per tree would be as follows:
      - Trees less than 18 inches diameter at breast height (dbh): 3 scabs
      - Trees 18 to 30 inches dbh: 4 scabs
      - Trees greater than 30 inches dbh: 5 scabs
  - Where juniper trees are used for line wire support, one scab per tree would be used. Three 20d nails would be driven at the top, middle and bottom of the scab
  - The fence shall be located on the ridge line area in this 160-acre parcel

Mitigation and monitoring measures would be as follows:

1. Fence construction activities would be prohibited during sage grouse reproductive and deer/elk wintering periods (December 1-June 30).
2. Areas disturbed by project activities would be monitored for noxious weeds. If any such weeds were found, they would be reported to the BLM weed specialist, and placed on a schedule for control work.
3. If any active burrows or nests are discovered during the course of project work, the BLM Wildlife Biologist would be consulted before any disturbance to these occurs.
4. If any new cultural resources were unearthed during the course of this project, work would be halted until such time as project resumption was approved by the BLM cultural resource specialist.
5. Following fence construction, livestock grazing would be managed to ensure that heavy forage use areas did not develop.
6. Fence construction-related vehicle and foot travel in areas immediately adjacent to the fence corridor proper would be prohibited.

The grazing permittee's total cost of fence construction would be about \$2500; and his annual maintenance costs approximating \$25-\$100 per year. Alternative A would lead to slightly improved livestock weight gains, since they would be on fresher feed each year; the degree to which this might occur and the associated monetary return is presently unknown.

#### B. Alternative B: No Action

The permittee would not be granted authorization to install the 0.8 miles of fence on public land. One result would be that the grazing permittee would decide to either abandon the idea of constructing fences on his private land, or to build a fence on his private land elsewhere.

Since this alternative would not promote more uniform livestock use, it would not contribute toward the purpose and need.

There would be no changes to those current grazing management, mitigation or monitoring measures or requirements described in Paragraph III.E below.

No changes in monetary costs or benefits would be expected to occur as a result of this alternative.

#### C. Alternative C: Daily Riding and Herding

This alternative would involve daily riding and livestock moving to equalize livestock distribution across the pasture. "Riding and herding" refers to a practice whereby a person (or persons) mounts a horse; seeks out cattle; and if the cattle are not where the person wants them to be, they move the cattle to a place where they want them to be. When applied to forage utilization management, this practice leads to livestock being removed from areas where forage utilization objectives have been met, to areas not yet utilized by livestock.

Because this alternative would contribute toward more uniform livestock use, it would meet the purpose and need - although not to the degree resulting from Alternative A.

There would be no changes to those current grazing mitigation and monitoring measures or requirements described in Paragraph III.E. below.

The grazing permittee would incur between \$500 and \$1000 per year in new implementation costs. It cannot be projected at this time if or how monetary benefits would change as a result of implementing this alternative.

#### D. Other Alternatives Considered But Not Further Analyzed

One alternative considered was the elimination of livestock grazing on public lands in the North Pasture of this allotment. It was not further analyzed because first, construction of fencing along the many public and private land boundaries would be cost-prohibitive. And second, it would have been inconsistent with the goals and objectives of the RMP and the S & G's.

Another alternative considered was the construction of a similar fence on adjacent private land (instead of public land). Since such construction would not be subject to NEPA analysis, it was not further analyzed here.

### **III. Description of the Affected Environment**

The proposed fence corridor is located within the NW1/4 Sec 27, T 18 S R 16 E, Willamette Meridian, in Crook County, Oregon. It is within an isolated 160-acre public land parcel located within the North Pasture of the West Butte Allotment. The general area is characterized by mixed and intermingled land ownership patterns.

#### **A. Soil**

In the project vicinity, these are typically moderately deep clayey loams and are derived from weathered basalt and/or ash and lava rocks.

Current technology provides the capability to construct fences on even solid rock.

#### **B. Vegetation**

A list of the vegetation present in the area is contained in Botanical Evaluation Report #01040 (Appendix B). This report documents that while no special status species were observed in the proposed project corridor during the August 9, 2001 survey, Green-tinged paintbrush (*Castilleja chlorotica*) is present in adjacent areas located northwest of the proposed fence line corridor.

An Observed Apparent Worksheet for the North Pasture (dated 7/18/97) documented an average pasture trend rating of 29 (Upward Trend). This Worksheet also states: "Conditions in this pasture are highly variable; appear to be driven by precipitation, degree of juniper occupation. Burned areas generally have high soil stability, good vegetation cover. Upper-elevation juniper-occupied sites show good vegetation composition/cover, stable soil except in dense juniper canopy/shallow soil sites. Low- to mid-elevation juniper-occupied sites vary from relatively healthy range (low juniper densities) to areas where erosion, depauperate understory vegetation easily found. Young and middle-aged juniper well-distributed throughout pasture, suggesting trend toward juniper dominance."

No noxious weeds are known to be present here.

#### **C. Recreation/Visuals**

The project site is surrounded by private land, and is not accessible to the recreating public. It is visually masked from ground sites accessible to the public, but is visible from aircraft.

#### **D. Wildlife**

Most of the project area is known to be frequented by deer and elk on a year-around basis.

The southern end of the fence corridor lies about 2 miles northeast of a known and frequently used sage grouse lek. It is currently estimated that 80% of nesting (by lek birds) occurs within 5 miles of this lek; therefore, all this

proposed fence corridor lies within the nesting potential radius.

The Biological Evaluation Report (OR-056-01-058) (Appendix C) cites the following Threatened, Endangered or Sensitive (TE & S) species as having have potential habitat in the project area:

- Incidental use: Northern bald eagle, Canada lynx, Townsend's big-eared bat, Brazilian free-tailed bat, and spotted bat
- Reproductive Habitat Potential: Burrowing owl, ferruginous hawk, northern goshawk, pygmy rabbit, western sage grouse, and streaked-horn lark

Detailed analysis of surveys, habitats and effects analysis are contained in the Biological Evaluation/Biological Assessment Review (Project File, 2002 - Prineville District Office).

#### E. Livestock Grazing Management

The North Pasture area is typically grazed for a month to six weeks during late spring, summer or early fall by varying numbers of livestock, as part of the overall deferred-rotation grazing management system established here. Salting, water distribution and periodic riding and herding are the primary mechanisms used to control livestock use distribution and uniformity.

Because the private and public lands are intermingled, the same livestock graze the same areas commonly.

Actual use records indicate that approximate total actual livestock grazing use for the intermingled public and private lands within the North Pasture for the past nine years has been as follows:

2001: 270 yearlings, 5/25-7/10 (413 Head-Months)  
2000: Rested (no livestock grazing)  
1999: 570 yearlings, 5/31/99-7/10/99 (775 Head-Months)  
1998: 448 cow-calf pairs, 6/19-8/27 (1057 Head-Months)  
1997: 465 cow-calf pairs, 8/14-10/27 (1162 Head-Months)  
1996: 515 cow-calf pairs, 9/10-11/3 (901 Head-Months)  
1995: 371 cow-calf pairs, 6/15-9/7 (1020 Head-Months)  
1994: 420 cow-calf pairs, 8/4-9/24 (714 Head-Months)  
1993: 355 cow-calf pairs, 7/22-9/25 (746 Head-Months)

(Note: The above actual use numbers are cumulative for the public and private lands within the North pasture. Because the private land constitute the majority of lands in this pasture, and they include higher-forage producing rangeland, they tend to receive the majority of livestock use that occurs in this pasture).

The many management, mitigation and monitoring measures which guide annual grazing management plans and activities in this allotment include those listed in the RMP (pages 74-92); the S & G's (pages 1-22); BLM Grazing Permit Number 3605554 (pages 1-4); and the Management Guidelines for Greater Sage-Grouse and Sagebrush-Steppe Ecosystems.

#### F. Off-Highway Vehicle (OHV) Use

Although the site is near the BLM-designated "Millican Off-Highway Vehicle Management Area", no general public OHV use is known to occur on the project site. The project area is surrounded by private land; there is no public access to it.

The grazing permittee does operate an Off-Highway Vehicle in the area in order to maintain rangeland improvements.

## G. Cultural Resources

A variety of cultural resources (including juniper structures, lithic material, and plants of religious and food value) are known to exist in Central Oregon.

A cultural resource survey of the project corridor was conducted during February, 2002. The survey report number is 05050600352P. No cultural resources were discovered during the course of this survey.

Please see Section VII for a description of Native American Religious concerns.

## I. Riparian/Watershed/Water Quality

The west end of the proposed project corridor lies approximately 1/3 mile east of Williamson Creek, the upper (private land) reach which exhibits near-perennial flow; and the lower (public/private land) reach, intermittent flows. There are no springs, riparian areas, or perennial water bodies within the proposed fence line project corridor. There is no water quality data available for any water bodies within this pasture.

The "Riparian Sites" section of the West Butte Allotment/Pasture Evaluation Worksheet (dated 7/21/97) documented that key riparian conditions/indicators (such as bank gradient, soil composition, stream sediment loads, bank stability and riparian vegetation) were highly variable within North Pasture streams. For example, one reach of a channel was low gradient and had stable banks with abundant riparian vegetation; while another had high gradients, was actively eroding, and had little riparian-associated vegetation.

The "Watershed Conditions" section of this same Worksheet also states the following: "All pastures (except the North Pasture) overall show near-term stability - though this will likely change unless advancing juniper encroachment is arrested. In the North pasture, there are several areas with well-established juniper dominance and watershed instability".

## IV. Impacts

Unless otherwise indicated, these effects would occur on both public and private lands alike in the immediate project vicinity.

### A. Soil

1. Alternative A: This would lead to the disturbance of the top two inches of the soil surface in fence construction areas. This would result from livestock, vehicle and human trailing along the fence.
2. Alternative B: No new soil disturbance would result from this alternative.
3. Alternative C: Soil disturbance would be slightly increased along horse and livestock trailing routes.

### B. Upland Vegetation

1. Alternative A: This includes the felling of young juniper along the fence route, which would lead to enhanced understory (shrub, grass and forb) cover in the fence line corridor. Because of a temporary rise in vehicle traffic in the area, this alternative would elevate short-term risks for noxious weed introduction and spread. Improved livestock dispersion and a reduction in the number of livestock congregation areas would amplify net grass cover and density. There would be no new effects on special status species.
2. Alternative B: There would be no new effects on vegetation.
3. Alternative C: Because of more vehicle traffic each year resulting from horse transportation, both short-

and long-term risks for noxious weed importation and spread would be elevated. Enhanced livestock dispersion and a reduction in the number of livestock congregation areas would expand net grass cover and density. There would be higher risks for trampling special status plants as a result of more livestock trailing/herding in the area.

#### C. Visuals

1. Alternative A: Alternative C would lead to post-settlement-era juniper being removed within the fence line corridor. Although not visible from public lands, localized visual attributes (as viewed from private lands) would be altered, and for the general public, clearly visible from lower-flying aircraft.
2. Alternative B: There would be no changes in visual quality.
3. Alternative C: No changes in visual quality would result.

#### D. Wildlife

As shown in Appendix C (Biological Evaluation), the following effects would occur:

1. Alternative A: Of the 29 Special Status Species which are known to or potentially occur, effects to these species would range from no impact to may impact, but would not likely contribute to a trend towards Federal listing or habitat. This alternative would create a potential obstacle/hazard to wildlife movement.
2. Alternative B: Of the 29 Special Status Species which are either known to or potentially occur in the project area, there would be no impact to these species as a result of Alternative B implementation.
3. Alternative C: Of the 29 Special Status Species which are known to or potentially occur in the project area, effects would range from no impact to may impact, but would not likely contribute to a trend towards Federal listing.

#### E. Livestock Grazing Management

1. Alternative A: Livestock distribution and associated grazing patterns would be improved most under this alternative. Having stock in a smaller area and for a shorter period of time would facilitate more efficient livestock gathering and movement.
2. Alternative B: There would be no new consequences for grazing management.
3. Alternative C: The consequences for livestock grazing would be similar (though to a lesser degree) to those shown for Alternative A.

#### F. Off-Highway Vehicle Use

1. Alternative A: More short- and long-term off-highway vehicle use in the fence line corridor would result, since an OHV would be periodically used in this corridor for fence maintenance purposes.
2. Alternative B: No new consequences for off-highway vehicle use would be expected to occur as a result of this alternative.
3. Alternative C: No changes in off-highway vehicle use would be expected to occur as a result of implementing this alternative.

#### G. Cultural Resources/Native American Religious Concerns



1. Alternative A: This alternative would not be expected to affect cultural resources or Native American religious concerns.
2. Alternative B: The consequences would be the same as shown for Alternative A.
3. Alternative C: The consequences would be the same as for Alternative A.

#### H. Threatened, Endangered or Sensitive Plants

1. Alternative A: This alternative would not have any effects on these plants.
2. Alternative B: The consequences would be the same as shown for Alternative A.
3. Alternative C: The consequences would be the same as shown for Alternative A.

#### I. Watershed/Riparian Vegetation/Water Quality

1. Alternative A: Increased vegetation cover and density expected to result from this alternative would improve these conditions. This effect would result from a decrease in the amount of time that livestock were present in these areas. Because an additional pasture would be created, it would increase management flexibility (i.e., provide more capability to annually modify current grazing rotations) so that site-specific riparian vegetation requirements could be better met.
2. Alternative B: No changes in these conditions would be expected to result from implementing this alternative.
3. Alternative C: The effects of this alternative would be similar to those shown for Alternative A, except to a lesser degree and extent.

### V. Cumulative Effects

When coupled with the aforementioned fence construction on private land, Alternative A (fence construction on public land) would lead to the following cumulative effects:

#### A. Potential Obstacles to Wildlife Movement

There would be about 4 miles of fence located on private land. Since Alternative A would lead to the construction of about 0.8 miles of fence on public land, then there would be about 4.8 miles of total fence having the potential for presenting an obstacle to wildlife movement. As previously addressed, these risks would be mitigated through the fence design standards previously described.

#### B. Visuals

When coupled with private land fence construction, Alternative A actions would lead to a total of about 4.8 miles of fence line corridor, portions within which vegetation (such as juniper) would be altered. As previously addressed, fence design standards and fence line corridor mitigation measures would preclude these vegetation changes from being apparent to the public land visitor.

#### C. Management Integration and Effects

Alternative A actions would complement private land owner and BLM efforts to meet the BLM direction and guidance described in Paragraph I.B.. These actions would also contribute to the accomplishment of private land

operational, land health and functioning goals of the private land owner.

## **VI. No Impact Items**

The following critical elements were considered, but were not addressed because they would either not be affected or do not exist in the project area.

- Areas of Critical Environmental Concern
- Prime/Unique Farmlands
- Floodplains
- Paleontological Resources
- Environmental Justice Cases
- Solid/Hazardous Wastes
- Wild and Scenic Rivers
- Wilderness/Wilderness Study Areas

## **VII. Consultation and Coordination**

### **A. Persons and Agencies Consulted**

Public/other agency advisement (including the Summer, 2002 proposed decision date) of this project has been ongoing since 2001 through the Forest Service/Bureau of Land Management's "Schedule of Projects". No comments specific to the West Butte Fence proposal have been received.

Coordination was performed with the grazing permittee for the West Butte Allotment. Coordination with ODFW and Crook County Soil and Water Conservation District was accomplished as part of annual project reviews.

Consistent with Oregon State Office, Bureau of Land Management, U. S. Department of Interior Information Bulletin OR-96-094 (dated January 19, 1996); telephonic inquiries were initiated to representatives of the Klamath Tribes, the Confederated Tribes of the Umatilla, the Confederated Tribes of the Warm Springs, and the Burns Paiute Tribe on matters concerning this project. No concerns specific to this project resulted. Previous consultations with the Indian Tribes (which pre-dated this project proposal) have revealed their concerns and interests in seeing the following protected: Juniper structures; lithic material; plants of religious and food value; and hunting opportunities for the yellow-bellied marmot.

### **B. Preparers**

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NEPA Requirements Met:

/s/ JC Hanf, Acting  
Marcie Todd

07/16/02  
Date

Environmental Coordinator

**Appendices**

Appendix A: Project Location Map

Appendix B: Botanical Evaluation

Appendix C: Biological Evaluation